Amendments to the Specification:

Please replace the paragraph beginning on page 10, line 26 with the following rewritten paragraph:

Next, the angles γ are determined to be the angles between the vector v_{Gxy} and both the positive and negative vertical axes of the image. The vertical axis of an image is the axis on the image plane parallel to either the x-axis or the y-axis which also passes through the "top" and "bottom" of the image. The vertical axis of the image will be further explained herein below. If the vertical axis of the image is known, then the angles γ are computed by taking the inverse cosine of the dot product of the two vectors, as is well known in the art. For example, if the y-axis is the vertical axis of the image, then the angles γ may be determined as:

$$\gamma = \text{sign}(x_G y_G) \cos^{-1}(v_{Gxy} \cdot [0,1,0])$$

$$\gamma = \text{sign}(x_G y_G) \cos^{-1}(v_{Gxy} \cdot [0,-1,0])$$

where $sign(x_G y_G)$ represents the sign (-1 or +1) of the product of x_G and y_G. For example, when x_G and y_G are either both negative or both positive, the $sign(x_G y_G) = 1$. Alternatively, when only x_G or y_G is negative then $sign(x_G y_G) = -1$.

Please replace the paragraph beginning on page 13, line 15 with the following rewritten paragraph:

Fig. 5A shows an original image that has an apparent amount of camera rotation ~~(the camera was tipped in the clockwise direction at the time of capture.)~~. The method of the present invention was applied to the original image and estimated that the amount of rotation of the original image in the counter-clockwise direction was 3.4 degrees. Fig. 5B shows the corrected image, generated by rotating Fig. 5A by 3.4 degrees in the clockwise direction. There is a noticeable improvement in the handrail orientation as a result of the processing of the present invention. In the case where the image transform **19** performs a rotation of the digital image, there may be additional logic based upon the value of β. For instance, if $|\beta| < 1$ degree, performing a rotation correction may not produce a result noticeable enough to be worth the computational effort. Additionally, there may be an upper limit on the amount of rotation that the image transform **19** will execute. For example, if $|\beta| = 44$ degrees, it may be advantageous that nothing is done to the image, as a modification

of this magnitude may produce displeasing results if the value of β produced by the algorithm was incorrect. Another aspect of the invention has the image transform **19** performing a rotation by an amount of $-\beta$, the resulting image produced has a vanishing point on the vertical axis of the image (assuming that the value of β is correct). In this embodiment, the image transform **19** is a rotating transformation which operates by rotating the image. Such a transformation is a warping of the image, since the geometry of the image output from the image transform **19** has been modified relative to the geometry of the image input to the image transform **19**. The location of the rotation candidate vanishing point v_G of the image input to the image transform **19** is an undesirable vanishing point location, because it does not lie on the vertical axis of the image. The vertical axis of the image is considered to be a preferable vanishing point location. However, those skilled in the art will recognize that other preferable vanishing point locations may exist. For instance, infinity (or z_G =0 in vanishing point vector notation) may be a preferable vanishing point location. In this case, the digital image may be modified by an image transform **19** designed to warp the image in such a manner that the image resulting from the image transform **19** has a vanishing point now located at infinity. Alternatively, another preferable vanishing point location may be at infinity and also on the vertical axis of the image (in this case, either x_G or $y_G = 1$). Clearly, the vanishing point of the image output from the image transform **19** lies on the vertical axis of the image, and is therefore a preferable vanishing point location. Thus, the operation of the image transform **19** is to warp the image in such a fashion that a vanishing point associated with the input image migrates from an undesirable vanishing point location to a desirable vanishing point location in the image output from the image transform **19**. Those skilled in the art of image processing will recognize that an image transform **19** may be created (either deterministically or empirically) to warp an image in such a manner as to relocate a vanishing point from an undesirable vanishing point location within the input image to a desirable vanishing point location within the resulting image.